DOCUMENT RESUME

ED 230 542 SP 022 385

AUTHOR Duncan, David F.
TITLE Stress and Children: A Theoretical Overview.
PUB DATE 10 Apr 83
NOTE 16p.; Paper presented at the Annual Meeting of the American Alliance for Health, Physical Education, Recreation and Dance (Minneapolis, MN, April 10, 1983).
PUB TYPE Information Analyses (070) -- Speeches/Conference Papers (150) -- Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adjustment (to Environment); Adults; Child Development; Child Psychology; *Children; *Coping; Elementary Education; Family Environment; *Health; Psychological Patterns; *Stress Variables; *Well Being

ABSTRACT

Children experience stress just as adults do. Various responses to stress can damage the body's health in at least two different ways. First, they may do direct damage to the tissues--especially those of the circulatory system. Second, and more often important to the health of children, they may suppress the body's natural defenses against disease. Studies have shown the association between stress and illness in both adults and children. Children are exposed to a wide variety of stress. Some of the most potent include: birth of a sibling; entering school; change in residence; parent's marital problems; bereavement; adoption; and illness. Children who develop health problems in response to stress are often victims of stress overload. They frequently lack strong coping skills and/or social support and quite often are "Type A" (coronary prone) personalities, characterized by competitiveness, a sense of time urgency, and higher than average levels of aggression and hostility. There are a variety of ways adults can help children to cope. They can improve communication with children; increase adult understanding of child development; expand children's social resources; provide peer education and counseling; plan in anticipation of major stressful events; teach problem solving skills; and teach relaxation techniques. (JM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED230542

STRESS AND CHILDREN: A THEORETICAL OVERVIEW

David F. Duncan, Dr.P.H.

Professor of Health Education

Southern Illinois University at Carbondale

Carbondale, Illinois 62901

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Paper presented at the 1983 Annual Meeting of the American Alliance for Health, Physical Education, Recreation and Dance, Minneapolis, Minnesota

April 10, 1983

SP 022 385

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

David F. Duncan

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

When we think about stress we do not usually think in terms of children. We have an image in our society of childhood as a happy carefree time. The problems of childhood are seen as little matters of no real consequence and the tears of childhood as being less than the grief of an adult -- readily soothed away with a mother's touch or quickly forgotten given a few moments distraction with a new toy. This view shows that we are, as a society, afflicted with a bad case of amnesia. No time of life is free from stress and childhood is perhaps the time when we are all most susceptible to stress. The pains and fears and worries of children are very real indeed and they are if anything more deeply felt and less readily forgotten than those of adults who have developed greater coping skills, wider social supports and a broader perspective based on more lifetime experiences.

THE STRESS REACTION

Whether in children or in adults stress is the same process. Stress results whenever any event demands readjustment in the child's ways of dealing with the world. The greater the readjustment the greater the stress. Likewise, the more the readjustment demands that the child make adjustment in ways the child has never used before, the greater the stress.

Internally, stress is basically a state of nervous system arousal. The part of the nervous system that is involved is that known as the autonomic nervous system or ANS. The ANS is responsible for control of those essential bodily functions which are too vital to require conscious control. Functions such as heart beat, breathing, digestion, etc. are not things we would want to have to think about each time we did them. Fortunately, we don't have to -- the ANS controls them for us without requiring our conscious attention.

The ANS itself is divided into two parts. The first half, known as the sympathetic nervous system (SNS), creates a state of readiness for action in response to stimuli. This state is brought about through the actions of neurohormones and the release into the blood stream of certain endocrine hormones,

especially those produced by the adrenal gland (for this reason the SNS is sometimes known as the adrenergic nervous system). This generalized state of preparedness for action is sometimes called the "fight or flight response." This term suggests that SNS arousal is an evolutionary carry-over from our primitive ancestors whose reaction to any new stimulus was to either fight or run away. SNS arousal prepares the body in many ways for either fighting or running away. The heart beats faster, blood pressure rises, blood vessels leading to the heart dilate as do the bronchioles leading to the lungs, all of which serves to increase oxygenation of the blood. Blood circulation is directed away from the skin and digestive system, allowing more blood to be directed to the skeletal muscles which would be called on for extra effort in either fighting or running. Cell metabolism goes down to save energy while stored glycogen is broken down to release more sugar into the blood to provide the energy for action. The pupils of the eyes widen to permit more light to enter. And if the arousal is great enough the bowel and bladder empty themselves.

The other half of the ANS, known as the parasympathetic nervous system (PNS). produces exactly the opposite effects. For this reason PNS arousal has been referred to as the "relaxation response." This general lessening of body tensions produces feelings typically described as calm and tranquil, warm and radiant, or simply pleasurable.

STRESS AND CHILDREN'S HEALTH

The fight or flight response can damage the body's health in at least two different ways. First, it may do direct damage to the tissues -- especially those of the circulatory system. Elevated blood pressure places strain on the heart, kidneys and blood vessels. This strain may result in ruptures of weaker parts of the system and also may cause microscopic tears in the walls of arteries which are hypothesized to play a role in the deposition of plaque on the walls of the arteries thus restricting circulation. These effects are, for the most part, gradual and have little immediate effect on the health of children except in cases where a special weakness (such as an aneurism) makes a particular child especially susceptible.

Second, and more often important to the health of children, they may suppress the body's natural defenses against disease.

The adrenal hormones associated with the fight or flight response naturally suppress the whole immune system. They reduce the ability of lymphocytes to recognize foriegn substances and to produce antibodies. The sympathetic nervous system itself has nerves which lead to the spleen and thymus, two organs involved in the production of lymphocytes. These nerve connections may also be involved in reducing defenses against disease.

Studies of the association between stress and illness in adults are numerous. A number of studies have produced similar findings for children. Meyer (19), for instance found that thirty percent of all well children had strep bacterial infection present in their throats but showed no symptoms of illness. He had rediscovered the principle that infection without disease is the usual state in nature. As he put it, "peaceful coexistence is the rule, disease is the exception "He examined the differences between the majority of infected children who did not become ill and the minority who did. What he found was that one-fourth of the children's sore throats followed a family crisis. An ill child was four times as likely to have just experienced a stressful experience as was one of the infected but healthy children.

Roghmann (1973), in a study of utilization of health services by young children and their families, examined the influence of stress on any illness in children. He found that children were twice as likely to experience illness on a day when some stressful episode such as a family fight or job tensions requiring family readjustment. The day after such a stressful episode the probability of the child becoming ill was three times higher than the usual day to day risk of illness.

Coddington and Heisel have demonstrated in a number of studies (Heisel, 1972; Heisel, et al, 1975) the relationship between an unusually large number of events requiring life readjustments and both infectious and non-infectious diseases. Excess life change events have also been shown to be related to the onset of drug dependence in adolescents (Duncan, 197 & 197). Parents who abuse their children have been shown by Justice & Duncan (19) to have experienced more life change events during the year before they first abused their child than had a random sample of parents.

STRESSES IN CHILDHOOD

Children are exposed to a wide variety of stresses. I will briefly discuss just a few of the more potent which affect large numbers of children. Some affect all children, some affect most, some affect only a relative few.

BIRTH OF A SIBLING

The birth of a brother or sister can be a stressful experience for any child. It entails a period of separation from the mother and an awareness of parental worries about the health of both the mother and the new baby. It also means a new family member and a new sharing of parental attention and other family resources.

For the first-born child the birth of a first sibling is especially stressful. Jealousy, fear of loss of place and real losses of parental attention all afflict the child in this situation. Serious emotional and physical health effects have often been observed in children under this circumstance

ENTERING SCHOOL

The child entering school for the first time faces one of the major readjustments in life. The child faces unfamiliar tasks, interaction with a new authority figure, a greatly expanded peer group, and increased exposure to infectious agents, all while separated from the familiar social supports of the family and home.

The expanded peer group exposes the child to a degree of peer group pressure that most have never experienced before entering school. The lure of peer group approval leads many children to reject past values and behaviors and to adopt the values and behaviors of the peer group. Where those peer group values and behaviors are greatly in conflict with those of the child's parents the resultant stress is great. Congruence between family values and those of the peer group reduces stress and increases coping with all aspects of the new school experience. Those unable to gain peer group approval may experience a devastating decline in self-esteem making them more vulnerable to stress

CHANGE IN PLACE OF RESIDENCE

When the family moves, the child is ripped loose from the roots of social supports that have been developed in the peer group and among neighbors. The child is taken out of a familiar environment and thrust into a new environment. Everything is a readjustment. Even the most familiar behaviors are now taking place in a new setting and often involve new people.

When a child moves away from friends the separation is usually permanent. Adults can maintain contact with old friends via phone calls, letters and occasional visits; the child does not have the same opportunities to maintain contacts by these means -- a child, for instance, is not generally at liberty to make long distance phone calls whenever he/she wants to. Moving is in fact a form of bereavement for the child and its results can be as serious as a death in the family.

PARENT'S MARITAL PROBLEMS

Separation or divorce of the child's parents brings about many changes in the life of the child. These changes demand readjustments which are a source of stress. At the same time the child is losing to some degree a part of the familial social supports the child has learned to depend upon. Worse still, the child often believes that he or she is the cause of the marital problems, resulting in guilt feelings which are a major stressor.

An intact family torn by marital conflict may be every bit as stressful for a child as parental divorce. In this situation also, the child often feels guilt as the cause of the conflicts, no matter what the real causes may be

BEREAVEMENT

Death of a family member is a major stressor for any child. Readjustments, loss of supports and guilt feelings all result from such a bereavement.

The loss of a parent is a particularly potent sourc of stress for a child. Not only is it a major stressor in itself but it

often sets in motion a chain of disastrous events for the child, such as frequent changes in caregivers, change in place of residence, loss of family economic status, and in many cases rejection by the surviving parent.

The death of a friend can also be a very serious source of stress for a child. Fears about the child's own mortality may be faced for the first time under these circumstances. Guilt feelings again are very likely to result in these cases.

ADOPTION

Adoption combines bereavement with adjustment to a new family. The child often needs help to understand parental loss and to eliminate the common misconception that adoption was a punishment. The adopted child is under tremendous pressure to earn acceptance in the new family, whether the new parents really make such demands or not.

The situation is even worse for the child adopted as an infant who learns of the adoption later in life. This presents the same problems as are experienced by the older child experiencing adoption plus a loss of trust in the adoptive family. The child often feels a sense of betrayal of trust by the adoptive family. The desire for rootedness in a family heritage creates an important new need for these children in which they must be supported.

ILLNESS

The ill child is threatened in many developmental needs. Illness threatens the childs independence, security and physical well-being. Illness may separate the child from social supports -- being home sick in bed separates the child from peers, being hospitalized reduces contact with parents and siblings as well. The ill child often feels stigmatized and different from peers. For this reason ill children need peer group contact and support during the period of their illness.

The child who is ill often believes that the illness is a punishment for misdeeds. Though this is usually true of younger children, it may also be seen in older children, even teenagers.

Adults often contribute to this by well-intended but harmful efforts to teach the child self-responsibility with emphasis on, "this is what comes of eating too much ice cream," or "next time you'll know better than to play in puddles and get wet and chilled."

Unpleasant tasting medicine, hypodermic needles, painful exercise, restricted diet, etc. are all stressors. The child needs to be helped to understand the nature of and need for these noxious experiences. Support of family and peers is vital to cope with these stressors. Most of all, the child must be assured that they are not punishments

VULNERABILITY

Why do some children develop health problems in response to stresses which most of their peers are able to cope with? Why is one child unable to cope successfully with a new sibling or with beginning school when most children are able to cope? There is no single, simple answer.

STRESS OVERLOAD

A major part of the answer is that not all children entering school or facing some other such common stressor have had the same recent history of stress. Some have faced no other major source of stress in the months before entering school; while others have experienced multiple stresses in the same period. Even minor stressors preceding such an event as entry into school will make entering school more difficult to cope with. The effects of stressors seem to be additive, perhaps even multiplicative.

It seems that we need to rest our adjustment abilities for a while after coping with a stressor. The greater the stress the more time we need for recuperation. When stress crowds upon stress depriving us of that necessary recuperation time, the damage which may be done by stress is greatly increased.

COPING SKILLS

Children also differ in the skills they possess for coping with stress. Stress results from a demand for readjustment in the child's life. If that readjustment is one the child has made successfully in the past it will be easier for the child to make the readjustment again.

The extent to which children possess social skills for coping varies greatly. Some children have great difficulty in asking for help. Some find it hard to express their feelings openly. Some, as a result of early experience, cannot express certain feelings, such as anger or fear. Others cannot resist peer pressure or adult demands which call for more than they are capable of. Children lacking such social skills will be more vulnerable to stress.

Also of importance is the child's ability to activate the PNS -- the relaxation response. The ability to relax when faced with stress is not something which comes naturally to most of us. The extent to which children have learned to do so varies greatly.

SOCIAL SUPPORT

Children are less vulnerable to stress when there are many people they can call on for help and support. For the very young child the family is the only available source of social support. As the child grows older the potential sources of support multiply. Adults such as neighbors and teachers become possible sources of support. Even more vital is the support which may be given by peers. All children, however, do not have equal opportunities for such supports -- isolation, prejudice, language barriers, etc. all may restrict a child's opportunities for social support.

Nor are all children equally able to take advantage of those opportunities for social support which come their way. Lack of the social skills referred to in the section above limits the child's ability to take advantage of opportunities for social support.

The quality of communications between the child and those who provide social support is vital. Social supports are effective only if the child can communicate needs to them. If potential social supports do not know of the child's distress or needs they

can be of no real support. Where poor communications exist between parents and child, especially if there are no other adults available as alternate sources of support, the child is highly vulnerable to stress.

STRESS-PRONE BEHAVIOR PATTERN

A personality pattern, sometimes known as coronary prone behavior or as type A behavior, has been described in adults. This pattern is characterized by competitiveness, a sense of time urgency, and higher than average levels of aggression and hostility (Friedman & Rosenman, 1974) Evidence suggests that this personality or behavior pattern increases risk of heart disease. We might expect such a personality pattern to begin in childhood and there is now evidence that type A behavior can be identified in children.

Type A behavior might be seen, in part, as being a behavior pattern which exposes the child to increased amounts of stress. Time urgency, for instance, means that there is stress in trying to meet schedules, stress in dealing with others who are less time urgent, and the stress of guilt feelings when one is not able to function on schedule. Competitiveness implies losers vas well as winners and for the highly competitive person losing can be a major stressor and a profound blow to self-esteem.

For instance, in travelling to Minneapolis to deliver this paper, I rode on a university-owned bus which broke down three times and arrived in Minneapolis five-and-one-half hours late. Being very much a type B personality I regarded the breakdowns as a bit of variety in what could have been a dull trip. I would have preferred to arrive at my hotel at 10:00 PM as planned rather than at 3:30 AM but it made no great difference to me.

Consider, however, how one of my more type A colleagues would have been likely to react to that bus trip. Their sense of time urgency would have caused them to react to each delay. Each breakdown, signalling a delay, would trigger a stress reaction which would be sustained at a peak by uncertainty over how long the delay would last. Then there would be the anger at being delayed and the frustration. Their competitiveness would have been faced with the feeling that they had made the wrong choice in travelling by bus while their colleagues had been smart enough to take the plane.

Unfortunately, there are many forces in our society which tend to mold type A behavior in our children. In our schools, for instance, time urgency is reinforced. Promptness is rewarded, tardiness is punished, finishing your work first is rewarded while being last to finish is often ridiculed. Likewise competitiveness is encouraged, even consciously taught. Examples range from physical education programs centered on competitive athletics to spelling bees. A high school or junior high pep rally is a celebration of competitiveness, aggressiveness and hostility ("stomp" the other team).

HELPING CHILDREN TO COPE

There are a variety of ways we can help children to cope. We can improve communication with children, increase adult understanding of child development, expand children's social resources, provide peer education and counseling, plan in vanticipation of major stressors, teach problem solving skills, and teach relaxation techniques.

EFFECTIVE COMMUNICATION

Effective communications between parent and child, and between the child and other important adults, is of critical importance in coping with stress and in reducing to some degree the number of stresses the child will be exposed to. Children, just like adults, need someone who will listen empathetically and will respect their problem-solving ability. They need someone who will not ignore or belittle their feelings. They don't need someone who will offer empty reassurances, unsolicited advice or pat solutions. In other words, they need what we all need. Unfortunately, that sort of listener is often hard for an adult to find; for a child it is too often nearly impossible.

The child who has this sort of healthy, open, accepting and mutually respectful communications with parents is provided with a powerful support in coping with any stressor. The child under stress who lacks such a pattern of communications must search for a listener who is trustworthy and must spend time building the bridges of open communications before the feelings of stress, fear, anguish or whatever can be brought out into the open and

dealt with. Too often that trustworthy listener cannot be found in time.

A basic task, then, in helping children to cope better with stress is teaching both the children and their parents, teachers and other appropriate adults how to communicate about feelings. This is a social skill which can be taught. It should become an educational priority beginning with the youngest children in our schools and extending to adults everywhere they can be reached for educational programming.

ADULT UNDERSTANDING OF DEVELOPMENT

Parenthood has been called the most important unlicensed profession in our society. Anyone past puberty can become a parent through no greater qualification than the ability to perform a simple instinctive biological act. It isn't really so surprising that some parents do such a bad job of parenting; what is pleasantly amazing is that most of us do a pretty good to excellent job at a complex and highly demanding task we were never trained for.

Many parents really know very little about normal child development. They don't know what to expect from a child at various stages in the child's life and they may underestimate the variability among children in the ages at which they achieve important developmental milestones -- ranging from crawling to development of secondary sex characteristics.

Understanding normal child growth and development allows parents to avoid unrealistic goals and expectations that can become a source of stress. It helps them to recognize that the child may need time out to cope and may even need at times to regress temporarily in response to stress. It also permits them to recognize when the child truly is failing to develop normally and to mobilize appropriate resources to cope with whatever problem is presenting itself.

EXPANDING THE CHILD'S SOCIAL RESOURCES

The more resources the child has available for social support, the better equipped the child is to cope with the stresses which

may arise in the chil's life. Trusting relationships with open communication with adults in addition to parents provides the child with an extra buffer against stress. relatives, teachers, neighbors etc. can all become part of this valuable buffer.

The peer group also can be an important part of the child's social resources. Where the child is well accepted, the peer group is supportive and there is consensus on basic values between the peer group and the family, the peer group can be one of the child's most important supports in coping with stress.

PEER EDUCATION AND COUNSELING

A number of studies and demonstration projects have shown the value of using older children as tutors of children a year or two younger. Such programs prove to be an important stimulus to better academic performance both for the tutee and for the tutor. They can also give the younger child a valuable source of social support from someone who may be easier to communicate with about some problems than an adult. At the same time, the older child gains a sense of accomplishment and maturity from helping the younger child.

Peer counselors have also proven their worth in a variety of settings. They can often communicate more readily with troubled youths than can an adult counselor and troubled youngsters are often less reticent about going to them with a problem. Although they are no substitute for a qualified professional in dealing with the more serious sorts of problems, a well-trained peer counselor can be very effective in dealing with less severe problems if they have good professional supports and consultation available to them. Furthermore, they may be able to get those more severe problems out in the open where professional help can be sought.

ANTICIPATORY PLANNING

The child should be involved in planning and preparing for the predictable stressors. School, a new sibling, a new home, a stay in the hospital, all are less threatening if the child knows what to expect and especially if the child has been a party to making plans for the event. Somehow, a new baby seems less of an

intruder to a child who helped plan the nursery decorations, pick out the crib and put up a "welcome home baby brother banner."

Where effective communications exist, fears about the upcoming change can be expressed. Those fears can then be dealt with before the fact. This is not a time to introduce fears by talking about what the child might be afraid of, but a time to find out from the child what he or she does fear.

PROBLEM SOLVING SKILLS

Children can be taught skills in problem solving. Such skills as identifying feelings, recognizing cause and effect, understanding consequences, identifying and weighing alternatives, and evaluating probable outcomes can all be taught to children. Perhaps we spend to much time teaching children what they should do and too little time teaching them how to decide for themselves what they should do.

Consumer education and consumer health education may provide us with important models of what more of education ought to be about. We should do more of this and there is no reason why it should wait until our students are seniors or even seventh graders.

RELAXATION TRAINING

Jacobson (19) and others have demonstrated that relaxation is a skill that can be taught. Deep muscle relaxation, meditation, or simply quiet sitting are all valuable means of reducing sympathetic nervous system arousal and turning on the parasympathetic nervous system and its "relaxation response."

These skills can be taught to children just as they can to adults. We should begin to do so at the earliest level of elementary school with reinforcement and more sophisticated understanding as the child grows older. If the school isn't doing it, then the parents can. But if we want it to be done for all who need it we must do it through social mechanisms and not rely on the individual family. The families in which it is most needed would be least likely to provide it.

STRESS AND LIFE

Stress is an inescapable part of every human life from the womb to the grave. Children are not exempted. In fact, they are probably more subject to stress and more vulnerable to stress than are adults.

The health consequences of stress for children are both immediate and long-term. Results may be experienced now, while other results occur only many years later as a result of an accumulation of stress-caused tissue injury.

Stress is not evil. If it were not for stress we would all lay about as inert lumps of flesh until we starved to death unmotivated even by the stress of hunger. Stress is not just the spice of life, it is the essence of life.

Children can suffer from the effects of too much stress, too poorly coped with. But successful coping with stress is growth promoting -- it is an essential for wellness. The distinction between distress and eustress lies far less in what the stressor is than in how the organism responds to the stressor. I have endeavored to outline some of the ways that children can be helped to cope with stress in a wellness-enhancing rather than an illness producing way. These ways center on communications, supports and skills.